REMARKS/ARGUMENTS

Claims 2, 18, 19, and 23-25 are currently pending and stand rejected. Claims 1, 3-17, 20-22, and 26-44 are withdrawn in response to a restriction requirement. Claims 2 and 18 are amended. No new matter has been added by this amendment. In view of the foregoing claim amendments and the following remarks, all pending claims are believed to be in condition for allowance. Reconsideration and favorable action is respectfully requested.

Response to Election/Restrictions

The Examiner made final Applicant's election with traverse of Group VII and SEQ ID NO:1, apparently because SEQ ID NOs:1 and 3 are alleged to be independent and distinct sequences. Applicant's respectfully traverse the finality of the election of species for the following reasons. The sequences of SEQ ID NOs: 1 and 3 are respectively the cDNA nucleotide sequence of murine Lrp4 and the amino acid sequence of murine Lrp4. M.P.E.P. Appendix AI, Administrative Instructions Under the PCT, ANNEX B(1) stipulates that "[e]xamples giving guidance on how these principles may be interpreted in particular cases are set out in the PCT International Search and Preliminary Examination Guidelines". The PCT International Search and Preliminary Examination Guidelines discloses at chapter 10.59, Example 39, that when a DNA molecule encodes a specific protein, the protein and the DNA encoding the protein share a corresponding technical feature, and consequently, have unity of invention. In the instant case, the nucleotide sequences of SEQ ID NO: 1 encode the amino acid sequences of SEQ ID NO: 3, respectively. In view of the above. Applicants respectively request the Examiner reconsider this restriction requirement and examine SEQ ID NOs: 1 and 3 in a single application.

Priority

Applicant's hereby include a certified copy of the Japanese priority document 2004-213743 application as required by 35 U.S.C. § 119(b) to perfect the claim to foreign priority. Reconsideration of Applicant's claim for foreign priority is respectfully requested.

Claim Objections

Claim 2 is hereby amended to no longer depend from non-elected Claim 1. Removal of the objection is respectfully requested.

Objections to the Specification

The disclosure was objected to because it contained an embedded hyperlink. The specification is hereby amended to remove the hyperlinks. Removal of the objection is respectfully requested.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claim 18 was rejected as being indefinite because the claim was alleged to be unclear absent a statement of the hybridization conditions. Claim 18 is hereby amended to recite "wherein said stringent conditions are hybridization in 2X SSC, 0.1% SDS, at 65°C." Support for this amendment is found at paragraph [0050] of the published patent application. In view of this amendment, removal of this ground of rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 2, 18, and 19 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Zhang et al., J. Biol. Chem., 289(19):19115-19126, January 28, 2005 (hereinafter "Zhang"). Further, Claims 2, 18, 19, and 23-25 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Ono et al., WO 2004/065599, published August 5, 2004 (hereinafter "Ono"). Applicant's respectfully traverse the above rejections for the following reasons.

As an initial matter, Applicants hereby file a certified copy of the foreign priority document JP 2004/213743, filing date 07/22/04. Accordingly, it is submitted that Zhang and Ono are not prior art under 35 U.S.C. § 102, and therefore removal of the above rejections is respectfully requested.

Claims 2, 18, and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Morser et al., WO 1999/64608 (hereinafter "Morser"). Applicant's respectfully traverse the above rejections for the following reasons.

According to the Examiner, Morser is alleged to teach "methods comprising contacting cell and tissue samples with nucleic acid probes against the human corin allele (SEQ ID NO:1 of the reference, page 13) which has 99.8% local base similarity to SEQ ID NO:1 of the instant claims".

As an initial matter, Claim 2 is amended to recite:

> A method for selecting a dopaminergic neuron proliferative progenitor cell, wherein the method comprises the step of contacting a dopaminergic neuron proliferative progenitor cell marker polynucleotide probe with a cell sample thought to comprise a dopaminergic neuron proliferative progenitor cell, wherein the polynucleotide probe comprises a sequence selected from the following nucleotide sequences (1) to (5):
>
> (1) a nucleotide sequence complementary to a nucleotide sequence of SEQ ID NO: 1;
>
> (2) a nucleotide sequence complementary to a nucleotide sequence encoding an amino acid sequence of SEQ ID NO: 3;
>
> (3) a nucleotide sequence complementary to a nucleotide sequence encoding a sequence lacking a transmembrane domain in an amino acid sequence of SEQ ID NO: 3;
>
> (4) a nucleotide sequence that hybridizes under stringent conditions with a polynucleotide consisting of a nucleotide sequence of SEQ ID NO: 1, wherein said stringent conditions are hybridization in 2X SSC, 0.1% SDS, at 65°C; and,
>
> (5) a nucleotide sequence comprising at least 15 contiguous nucleotides selected from sequences of (1) to (4).

Support for the amendment to Claim 2 is found throughout the application as filed, for example, paragraphs [0046]-[0050] and original Claim 1 of the application.

Morser does not teach, remotely suggest, or provide any motivation to arrive at the methods of Claims 2 and 18, as amended. First, no evidence has been presented that Morser discloses the dopaminergic neuron proliferative progenitor cells of the present application. The cell samples disclosed in the present application comprise cells of the ventral midbrain region or culture cells containing in vitro differentiated dopaminergic neuron progenitor cells (see paragraph [0101]). Moreover, Morser does not disclose that Lrp4 mRNA is expressed specifically and transiently in dopaminergic neuron proliferative progenitor cells.

Second, Morser does not disclose a method of selecting a dopaminergic neuron proliferative progenitor cell. The present application defines the term "selected" to include both detecting the presence of cells expressing markers in a sample, and subsequently separating or isolating those progenitor cells after detecting their presence (see paragraph [0091]). No evidence has been presented that Morser selects a cell after contacting a cell or tissue sample with nucleic acid probes that hybridize to corin sequences. Accordingly, because Morser does not teach or suggest the methods of Claims 2 and 18, removal of the above ground of rejection is respectfully requested.

Obviousness Type Double Patenting Rejection

Claims 2, 18, 19 and 23-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1 and 2 of co-pending Application No. 12/110111. Applicant's respectfully request the rejection be held in abeyance until (a) allowable subject matter has been established in the instant application, and/or (b) the co-pending application has matured into a patent, as specific claim limitations may be introduced between now and allowance that serve to distinguish the instant claims from those in the related co-pending application.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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